



## *Massachusetts Bay Transportation Authority*

### **POLICY/PROCEDURE**

<b><u>SUBJECT:</u></b> Equity Analysis for Major Service and Fare Changes	<b><u>DATE OF ISSUE:</u></b>  January 30, 2017	<b><u>APPROVED BY:</u></b>  Signature on Original Brian Shortsleeve, Acting General Manager
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## **Disparate Impact/Disproportionate Burden (DI/DB) Policy**

### **Requirement**

The Federal Transit Administration's (FTA) Title VI Circular 4702.1B, issued in October 2012, under the authority of Title VI of the Civil Rights Act of 1964 (Title VI), directs transit providers to study proposed major service changes and all fare changes for possible disparities in impacts on minority and low-income riders/communities.

This requirement is part of the Massachusetts Bay Transportation Authority's (MBTA) Title VI assurance that no person shall, on the basis of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity receiving Federal financial assistance. 42 U.S.C. § 2000d et seq., and the Civil Rights Restoration Act of 1987 (P.L. 100.259).

### **Purpose**

This policy satisfies FTA's requirement under Title VI Circular 4702.1B, chapter IV, section 7, to evaluate, prior to implementation, any and all service changes that exceed the MBTA's major service change threshold, as well as all fare changes, to determine whether those changes may have a discriminatory impact based on the finding of an adverse effect linked to race, color, or national origin, and/or a disproportionate burden, based on the finding of an adverse effect linked to minority or low-income status. All FTA requirements for conducting equity analyses are listed in Chapter IV, Section 7 of C4702.1B, and are addressed within this policy, including the definition of Major Service Change, Adverse Effects, Disparate Impact, and Disproportionate Burden. Explanations for all relevant terms and concepts related to this policy are provided in the Definitions section, below.

It is important to note that the unique nature of transit fare and service changes and the data used in given instances - - for example the appropriate population or ridership data -- will vary in order to ensure statistical reliability and significance. For this reason, MBTA exercises the discretion, as needed, to consult with FTA representatives for technical assistance. FTA's

<i>Policy Title</i> <b>Disparate Impact/ Disproportionate Burden</b>	<i>Supersedes</i> <b>DI/DB Policy of May 14, 2014</b>	<i>Page Number</i> <b>1 of 6</b>
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guidance recognizes that there must be flexibility in the selection of data for analysis, as “one size does not fit all” circumstances of possible transit fare and service changes. The guidance is further structured to ensure that a combination of timely and reasonable analyses, vetted through public input and Board approval, will ultimately result in equitable decision-making.

## Scope

The requirement to analyze service and fare changes at the MBTA applies to proposed changes to the Authority’s fixed-route modes; these analyses are not required for demand-response modes, including paratransit.

## Service Equity Analysis

### Major Service Change Policy

Per FTA’s Title VI Circular 4702.1B, the MBTA is required to evaluate the impacts on minority and/or low-income populations of proposed “major” service changes to the Authority’s fixed-route services. Whether a proposed service change will be considered “major” depends on whether the proposal meets one or more of the following conditions:

#### *Major Service Change at the Modal Level –*

- A change in Revenue Vehicle Hours (RVH) per week of at least 10% by mode.

#### *Major Service Change at the Route-Level –*

- For all routes, a change in route length of at least 25% or 3 miles; or  
For routes with at least 80 RVH per week, a change in RVH per week of at least 25%.

Note: Once a major service change is triggered by either the modal or route-level definition described above, the equity analysis must consider all concurrently proposed changes in the aggregate.

For the purposes of this policy:

- The MBTA’s fixed-route modes consist of: fixed-route bus (including electric trolley buses), heavy rail (Red Line, Orange Line, Blue Line), light rail (Green Line, Mattapan Trolley), commuter rail, and ferry.
- The MBTA’s non-bus routes are identified as each commuter rail line, each heavy rail or light rail line and each ferry line.
- Supplemental service that adds trips along pre-existing transit routes (e.g. school trips, weekend variations) will be counted as part of the parent route.

<i>Policy Title</i>	<i>Supersedes</i>	<i>Page Number</i>
<b>Disparate Impact/ Disproportionate Burden</b>	<b>DI/DB Policy of May 14, 2014</b>	<b>2 of 6</b>

- The complete elimination of existing routes or addition of new routes, by definition, constitutes major service changes.
- Changes in RVH and/or route length produced by quarterly service adjustments will be categorized under one of two labels: (1) Summer Quarter or (2) All Other Quarters. In determining whether these changes qualify as “major” under this policy, changes to Summer Quarter service will be compared to the previous Summer Quarter’s service and changes to any other quarter will be compared to the most recent non-Summer quarter’s service (fall is compared to spring, winter is compared to fall, and spring is compared to winter).
- Change in route length includes changes in alignment.
- Changes to RVH and/or route length will be analyzed as a percentage change and as an absolute change.
- Making a service change to more than 25% or 3 miles of a primary variation’s length would trigger the “major service change” designation.
- Making a service change to more than 25% or 3 miles of the combined segments of all variants (counting overlapping segments only once) would trigger the “major service change” designation.

#### Definition of Adverse Effects

The MBTA defines adverse effects of service changes as:

- For routes with at least 80 revenue vehicle hours per week, an increase or decrease in the amount of service scheduled, by route and by mode (as measured by changes to weekly RVH)
- An increase or decrease in the access to service, by route (as measured by changes to route length, in miles)

For the purposes of evaluating the degree of adverse impacts resulting from major service change proposals, the MBTA will measure and compare the extent of the loss or the gain among minority and nonminority populations and among low-income and non-low-income populations when conducting the equity analysis.

#### Disparate Impact/Disproportionate Burden Policy for Service Changes

The MBTA’s threshold for determining when adverse effects of major service changes may result in disparate impacts on minority and/or disproportionate burdens on low-income populations is 20%. If the ratio of the impact on minority to non-minority populations or low-income to non-low-income populations is more than 1.20 (or 20%), then the proposed change would be determined to pose a potential disparate impact or disproportionate burden.

<i>Policy Title</i>	<i>Supersedes</i>	<i>Page Number</i>
<b>Disparate Impact/ Disproportionate Burden</b>	<b>DI/DB Policy of May 14, 2014</b>	<b>3 of 6</b>

Upon finding a potential disparate impact on minority populations from a proposed major service change, the MBTA will analyze alternatives/revisions to the proposed change in order to avoid, minimize, or mitigate the potential adverse effects from the change. Any proposed alternative would also be subject to a service equity analysis. The MBTA will implement any proposal in accordance with then current FTA guidance.

When potential disparate impacts are identified, the MBTA will provide a meaningful opportunity for public comment on any proposed mitigation measures, including the less discriminatory alternatives that may be available.

Upon finding a potential disproportionate burden on low-income populations from a proposed major service change, the MBTA may take steps to avoid, minimize, or mitigate these impacts, where practicable, and will describe alternatives available to the low-income passengers affected by the service changes.

## **Fare Equity Analysis**

For all fare changes, the MBTA will compare the percentage change in the average fare for minority and overall riders and for low-income and overall riders. For fare-type changes across all modes, the MBTA will assess whether minority and low-income customers are more likely to use the affected fare type or media than overall riders. Any or all proposed fare changes will be considered in the aggregate and results evaluated using the fare DI/DB threshold, below.

### Disparate Impact/Disproportionate Burden Policy for Fare Changes

The MBTA's threshold for determining when fare changes may result in disparate impacts or disproportionate burdens on minority or low-income populations, respectively, is 10%.

Upon finding a potential disparate impact on minority populations from a proposed fare change, the MBTA will analyze alternatives/revisions to the proposed change that meet the same goals of the original proposal. Any proposed alternative fare change would be subject to a fare equity analysis. The MBTA will implement any proposal in accordance with then current FTA guidance.

Where potential disparate impacts are identified, the MBTA will provide a meaningful opportunity for public comment on any proposed mitigation measures, including any less discriminatory alternatives that may be available.

Upon finding a potential disproportionate burden on low-income populations from a proposed fare change, the MBTA may take steps to avoid, minimize, or mitigate these impacts, where practicable.

<i>Policy Title</i>	<i>Supersedes</i>	<i>Page Number</i>
<b>Disparate Impact/ Disproportionate Burden</b>	<b>DI/DB Policy of May 14, 2014</b>	<b>4 of 6</b>

## Definitions

(Note: These definitions are drawn from a broader set of definitions provided by the FTA in its Title VI Circular 4702.1B)

- Demand response system: Any non-fixed route system of transporting individuals that requires advanced scheduling including services provided by public entities, non-profits, and private providers. An advance request for service is a key characteristic of demand response service.
- Discrimination: refers to any action or inaction, whether intentional or unintentional, in any program or activity of a Federal-aid recipient, subrecipient, or contractor that results in disparate treatment, disparate impact, or perpetuating the effects of prior discrimination based on race, color, or national origin.
- Disparate Impact: refers to a facially neutral policy or practice that disproportionately affects members of a group identified by race, color, or national origin, where the recipient's policy or practice lacks a substantial legitimate justification and where there exists one or more alternatives that would serve the same legitimate objectives but with less disproportionate effect on the basis of race, color, or national origin.
- Disproportionate Burden: refers to a neutral policy or practice that disproportionately affects, whether by benefit or burden, low-income populations more than non-low-income populations, related to a major service change or fare modification proposal. A finding of disproportionate burden requires the recipient to evaluate alternatives and mitigate burdens where practicable.
- Disparate Treatment: refers to actions that result in circumstances where similarly situated persons are intentionally treated differently than others because of their race, color, or national origin.
- Fixed Route: refers to public transportation service provided in vehicles operated along pre-determined routes according to a fixed schedule.
- Low-Income Household: those households with income less than 60 percent of the median household income of the MBTA service area.
- Low-Income Census Tract: one in which the median household income is less than 60% of the median household income for the MBTA service area (\$43,415 in 2015, and subject to annual modification).
- Low-Income Population: any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed MBTA program, policy, or activity.
- Minority Individual: one who identifies as belonging in any one or more of the following US census categories: American Indian and Alaska Native; Asian; Black or African American; Hispanic or Latino (of any race); Native Hawaiian or Other Pacific Islander.

<i>Policy Title</i>	<i>Supersedes</i>	<i>Page Number</i>
<b>Disparate Impact/ Disproportionate Burden</b>	<b>DI/DB Policy of May 14, 2014</b>	<b>5 of 6</b>

- **Minority Census Tracts:** one in which the minority percentage exceeds the systemwide average (26.19% in 2015, and subject to annual modification).
- **Minority Population:** any readily identifiable group of minority persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed MBTA program, policy, or activity.
- **Revenue Vehicle Hours (per week):** the total number of hours per week in which transit vehicles operate in revenue service.
- **Route Length:** the physical length of a transit route, as measured in miles.

<i>Policy Title</i>	<i>Supersedes</i>	<i>Page Number</i>
<b>Disparate Impact/ Disproportionate Burden</b>	<b>DI/DB Policy of May 14, 2014</b>	<b>6 of 6</b>